FIG. 1 is a network diagram of a home network 100 including a wireless module 105. Home network 100 includes four host devices 110, 115, 120, 125. A host device can be a consumer appliance (e.g., a television, an audio system, a refrigerator, or a microwave oven), a computer, or some other network device. In FIG. 1, host device 110 is a television, host device 115 is a desktop computer, host device 120 is an audio system, and host device 125 is a video camcorder. In alternative implementations, home networks include different numbers of host devices, such as two or more. Host devices 110, 115, 120, 125 are interconnected by network links 130 forming a LAN. In FIG. 1, host devices 110, 115, 120, 125 are interconnected in a ring pattern. In alternative implementations, different network configurations can be used, such as a star pattern. Network links 130 can be wireline or wireless. Accordingly, various network types and configurations can be used in home network 100, such as Ethernet, IEEE 1394, or wireless LAN.

Host device 110 includes a wireless module port 135. Multiple host devices in home network 100 can include respective wireless module ports. Wireless module 105 is connected to host device 110 through wireless module port 135. As described below, in one implementation, wireless module 105 is a removable card and so wireless module port 135 is a matching slot to receive wireless module 105. Host device 110 includes control components to interact with wireless module 105 and communicate with home network 100.

Wireless module 105 can communicate with its connected host device 110 and can communicate through a wireless connection to an external network, such as the Internet 140. In one implementation, wireless module 105 establishes a wireless connection to a base station (not shown) to communicate with the Internet 140.

When host device 110 is connected to wireless module 105, the combination forms a home network portal 145. Host devices 110, 115, 120, 125 can communicate with the Internet 140 through the home network portal 145. Accordingly, home network portal 145 provides a gateway for communication between home network 100 and the Internet 140. In one implementation, multiple wireless modules are connected to respective host devices forming respective home network portals. Each home network portal can provide a connection to a different external network, or some or all of the

home network portals can provide connections to the same external network. When wireless module 105 is disconnected from host device 110, home network portal 145 is dissolved. If wireless module 105 is connected to a different host device having a wireless module port, a new home network portal is formed. Accordingly, which host device forms the home network portal is flexible and can be changed by moving the wireless module from one wireless module port to another.

In one example of operation, host device 125 (a video camcorder) sends video data through home network 100 to home network portal 145, including host device 110 (a television) and wireless module 105. Host device 110 sends the video data to wireless module 105. Wireless module 105 sends the video data through a wireless connection to the Internet 140.

FIG. 2 is a block diagram of one implementation of a wireless module 200, corresponding to wireless module 105 in FIG. 1. Wireless module 200 includes an antenna 205. Antenna 205 provides a wireless connection to a network, such as to the Internet 140 as shown in FIG. 1. Antenna 205 is connected to a transceiver circuit 210. Transceiver circuit 210 includes a duplexer 215, a transmitter 220, and a receiver 225. Transmitter 220 and receiver 225 are connected to a baseband signal processor 230. Baseband signal processor 230 processes signals received from and to be sent to transceiver circuit 210. Baseband signal processor 230 is connected to a microprocessor 235. Microprocessor 235 controls the operation of wireless module 200. Microprocessor 235 is connected to a memory 240 and an input/output (I/O) interface 245. Memory 240 provides storage for microprocessor 235. I/O interface 245 provides a connection to a host device, such as through a wireless module port 135 as shown in FIG. 1. I/O interface 245 can be implemented to support various interfaces, such as PCMCIA, Memory Stick™ by Sony Corporation of Japan, USB, IEEE 1394, or a wireless interface, such as a Bluetooth or infrared interface. Accordingly, wireless module 200 can be implemented in various forms, such as a card to be inserted into a wireless module port or an external device to be connected to a wireless module port through a wireline or wireless connection.

In operation, data packets received at antenna 205 are passed through duplexer 215 and receiver 225 to baseband signal processor 230. Baseband signal processor 230

provides the data to microprocessor 235. Microprocessor 235 passes the data to I/O interface 245 and on to a connected host device. Data packets received from a connected host device at I/O interface 245 are passed onto microprocessor 235. Microprocessor 235 provides the data to baseband signal processor 230. In one implementation, microprocessor 235 packetizes the data. Baseband signal processor 230 passes the data to antenna 205 through transmitter 220 and duplexer 215. Antenna 205 sends the data through a wireless connection to an external network, such as the Internet.

Wireless module 205 can be implemented to be compatible with various wireless formats, such as cdmaOne (IS-95B), cdma2000 1x, or cdma2000 1xEV. Wireless module 200 as shown in FIG. 2 is one illustrative implementation of a wireless module, and in alternative implementations alternative architectures can be used, such as one described in Baranowski et al. (Application No. 09/928,582, filed August 13, 2001).

FIG. 3 is a block diagram of a host device 300 including a wireless module port 305, corresponding to host device 110 and wireless module port 135 in FIG. 1. Wireless module port 305 provides an interface to a wireless module, such as wireless module 200 in FIG. 2. Wireless module port 305 can be implemented to support various interfaces, such as PCMCIA, Memory Stick™ by Sony Corporation of Japan, USB, IEEE 1394, or a wireless interface, such as a Bluetooth or infrared interface.

Host device 300 includes a home network portal control 310. As described above, a host device 300 that includes a wireless module port 305 becomes a home network portal when a wireless module is connected to the wireless module port 305. Home network portal control 310 passes data to and from a wireless module through wireless module port 305. In one implementation, home network portal control 310 packetizes data to be sent to a wireless module and depacketizes data received from a wireless module.

Home network portal control 310 passes data and a destination from wireless module port 305 to a home network interface 315. Home network interface 315 passes data from host device 300 to the home network and from the home network to host device 300. Host device 300 also includes a host device functionality block 320 connected to home network interface 315. Host device functionality block 320 provides